Special Session on

Lessons from COVID-19: Impact on Healthcare Systems and Technology

held at

11th World Congress on Information and Communication Technologies (WICT2021)

on

World Wide Web

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https://www.mirlabs.org/wict21/

Objectives and Scope

COVID-19 pandemic disrupted many sectors of the human livelihood and organizations'operational processes worldwide. Some of the main disruptions experienced by the stakeholders, particularly as it concerns the Healthcare and Technology sector was; the lack of preparedness and struggles they practically and technically encountered. In the healthcare system, there was the problem of short supplies of hospital equipment, digital literacy and skills, training for the medical professionals, and the challenge of how to take care of the patients by ensuring non-stop healthcare and management. Therefore, the need for disentangling and bridging the health gap between the populations who have missed the necessary care during this time and in the future, from those who had access to quality healthcare systems. In the Technology sector, the issues encountered was related to supply of raw materials and electronics value chain, e.g., hardware and software, semiconductors, networks equipment, IT services, and provision of high-performance computing resources for COVID-19-related research or projects. The encountered challenges had to do with acceleration of digital transformation, literacy and skills, increased importance of technology in the economy and society, prevalence of inequalities in access to and the use of technology, unequal effects of the crisis on research and development (R&D) across the different sectors, and changes in the openness, inclusiveness, and agility of research and innovation ecosystems (OECD, 2020, 2021; UNESCO, 2021, IEEE, 2020).

In this special session, we note that the aforementioned challenges must have raised concerns across the different organizations who are directly or indirectly involved, or yet, affected by the impact of the COVID-19 pandemic. Thus, some lessons were, theoretically and practically, learned from the pandemic, which the several organizations and stakeholders per se would, consequently, build on, adopt, adapt, and implement to not only tackle the aftermath of the global pandemic on the "Healthcare system and Technology", but would supposedly leverage the resultant *innovations* to ensure that such crises do not, and in the future, unveil the unpreparedness of the different sectors and/or inadequate measures being put in place in handling of Global pandemics (OECD, 2020; UNESCO, 2020; Moynihan *et al.*, 2021; Sohrabizadeh *et al.*, 2021; UN, 2021).

To this end, this special session aims to uncover the impact that COVID-19 has made on Healthcare and Technology industry. Specifically, it covers the state-of-the-art case studies, empirical research, and new trends or solutions that has spanned during the pandemic, to help inform and guide the concerned sectors and audience in understanding the disruptions and effects that the COVID-19 pandemic has made across the Healthcare system and Technology.

The special session accepts papers in the form of new and applied research, state of the art reviews, empirical and methodological application, and innovative solutions used to address the challenges posed by COVID-19 in context of the Healthcare system and Technology. The selected and extended works of authors of the Book titled "Lessons from COVID-19: Impact on Healthcare Systems and Technology" recently published by Elsevier will also be presented during this session.

Topics of interest include but are not limited to:

SubTopic I: Healthcare Sector
- History of COVID-19
- Problems and challenges in identifying vaccines for COVID-19
- Changes of legislation on clinical trials, and re-purposing of licensed drugs for the treatment of COVID-19 symptoms
- Effects of COVID-19 on primary health care
- Impact of COVID-19 on expectant parents and different stakeholders
- Effects of COVID-19 on doctors, medical professionals, nurses and supporting staffs of hospitals
- Best practises adopted by different countries to control the COVID-19 pandemic
- Disproportionate healthcare implications of COVID-19 due to age, ethnicity, gender, and socio-economic status
- How COVID-19 has affected Global healthcare and its implications for the future of Healthcare
- Socio-cultural and Economic effects of COVID-19 on global health care
- Psychological effects of COVID-19 on human beings
- Effects of COVID-19 on medical and clinical researchers
- Effects of COVID-19 on Tele-medicine, Clinical workflow, Security and Privacy Issues
- Effects of COVID-19 on drug manufacturing companies.
- Effects of COVID-19 on kids
- Effects of COVID-19 on the middle age and 21st century generation.
- Effects of COVID-19 on the healthcare of the elderly
- Effects of COVID-19 for people with diseases like Cancer, HIV, Mental health patients, and people with disabilities in general
- Health and safety best practices for use in Health environments and Public spaces during and after COVID-19

SubTopic II: Computing and Informatics
- Future research scope on COVID-19 treatment and Health informatics
- COVID-19 Technology-mediated solutions and infrastructures
- e-Health and Post-COVID-19 era
- Role and impact of digital technologies and mass media during COVID-19
- Digital transformation of the healthcare sector triggered by the Covid-19 pandemic
- Advances in virtual clinical learning, diagnosis, and therapy
- Modelling techniques and statistical projections that are used to predict the spread of the COVID-19 virus and decision making
- Success rates and turnaround times with COVID-19 using ICT
- Main enabling ICT technologies for development of cutting-edge healthcare systems and services
- Effects of COVID-19 on virtual healthcare with the usage of Internet of Things (IoT) technology
- Benefits and use of Cloud computing to provide IT infrastructure during COVID-19
- Benefits and use of Edge computing to provide IT infrastructure during COVID-19
- Benefits and use of Artificial Intelligence (AI) to provide IT infrastructure during COVID-19
- Benefits and use of Big Data Management and Machine Learning techniques to provide IT infrastructure during COVID-19

Paper Publications

Proceedings will be published in Lecture Notes in Networks and Systems, Springer (Indexed in SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago) https://www.springer.com/series/15179

• Papers maximum length is 10 pages

• Papers must be formatted according to Springer format (Latex/word) available at: https://www.springer.com/de/authors-editors/book-authors-editors/manuscriptpreparation/5636#c3324

*** All manuscripts must be submitted through Easychair Submission System using the following address: https://easychair.org/conferences/?conf=wict2021

Important Dates

Paper submission due: September 30, 2021
Notification of paper acceptance: October 31, 2021
Registration and Final manuscript due: November 15, 2021
Conference: December 16-18, 2021

Special Session Chairs
- Kingsley Okoye, Tecnologico de Monterrey, Mexico
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